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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LSI LOGIC CORPORATION
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EXAMINER

NGUYEN, HAU H

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,771

Applicant(s)

PETHER, DAVID N.

Examiner

Hau H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed November 1, 2004 with respect to claims 1-5, 7-12, and 21 have been fully considered but they are not persuasive. In response Applicant's arguments that reference Fujimoto (U.S. Patent No. 5,912,710) does not teach receiving a first input data stream from a bus, and generate a combined output data stream on the bus, the examiner disagrees. In fact, as shown in Fig. 1, Fujimoto teaches the image display control apparatus 300 receiving video and graphics data on a bus, and outputting the composite data stream on the bus. (Details of performing spatial combination of the first and second data streams are cited in the previous Office Action, and incorporated herein below for reference). Since reference Fujimoto meets the minimum requirements of the above claim set, rejections for these claims are still maintained. Applicant's arguments with respect to claims 13-20, and 22 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7-12, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimoto (U.S. Patent No. 5,912,710).

Referring to claims 1, 3, 9, 10, and 12 Fujimoto teaches an apparatus 300 reads out graphics data 100G (a first input data stream) and video data 100B (also referred to as "motion

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picture data") (a second input data stream) recorded on the DVD media 100 and generates image signals for displaying the blended images comprising the graphics data and motion picture data on the television monitor 200 which has a particular display aspect ratio (col. 5, lines 7-15). The image display control apparatus 300, as shown in FIG. 1, is comprised of a DVD ROM drive 101, a MPEG2 decoder 102, a video memory, such as a volatile random access memory (VRAM) 103, a color data controller 104 that includes a RGB color palette 104a and a color space converter 104b, a first modification circuit (which includes a display controller 155 and color data controller 104), the display controller 15 includes a filtering circuit 105 and a first scalar 106 for changing pixel aspect ratio of the graphics data 100G (scaling image to produce a first output data stream), a second scalar 107 (a second data modification circuit) for changing a size of the motion picture data 100B so that it fits in a video window of a given size on the monitor 200 (to produce a second output data stream), a a-blending circuit 108 (spatially combining) and an NTSC/PAL encoder 109 for providing image signals to the television monitor 200 (col. 5, lines 7-27).

In regard to claims 2 and 11, as shown in Fig. 8, Fujimoto teach included in the display controller 155 is a memory controller 201 for controlling access to the video memory (VRAM) 103, a bit block transfer circuit (Bit Blt) 202 (a block modify and move engine) for executing various logical operations between bit maps of a transferer and a transferee and scaling up or down the bit maps (bitwise logical operation), a graphics/video mixer 203, and a PCM audio controller 204.

In regard to claim 4, as cited above, Fujimoto teaches the first modification circuit converts input stream of graphics data into an output format between a video picture format and graphics format to be displayed on television monitor 200.

Referring to claim 5, as shown in Fig. 2, Fujimoto illustrates sample displays of a blended image comprising motion picture data and graphics data. In Fig. 2, a screen 20 are displayed the motion picture data displayed in a video window 21 and graphics data 22. The graphics data 22, for example, the contents of an electronic encyclopedia, are displayed as a background image for the video window 21 (spatial combination placing video pictures in front of graphics data) (col. 7, lines 57-67, and col. 8, lines 1-5).

In regard to claim 7, Fujimoto teach the color space converter 104b converts the RGB color data from the color palette circuit 104a to YCrCb television standard data (col. 7, lines 18-22), and thus including interleaving RGB color components.

Referring to claim 8, as shown in Fig. 10, Fujimoto teaches RBG/YCrCb color space converter 104b is comprised of three color tables of 10R, 10G and 10B for respectively corresponding to the red (R), green (G) and blue (B) colors. Each of the color tables 10R, 10G and 10B is comprised of 256 entries and an address decoder for selecting one entry among the 256 entries by decoding the pixel data of 8 bits. Each of the entries stores the color data of 8 bits (col. 12, lines 13-20). Color separation is illustrated in Fig. 10 and described on column 12, lines 21-29.

Referring to claim 21, as shown in Figs. 1, 8, and 9, Fujimoto teaches video data (a first data format) are generated from the MPEG2 decoder 102 (a first expander circuit), graphics data (a second data format) are generated from the display controller 155 (a second expander circuit).

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In the α -blending circuit 108 in FIG. 9, the graphics data and the DVD video data are combined as a function of the α value (a third data) of the pixel position corresponding to the displaying target line (spatial combination). This blending is performed at a timing (a control signal) in accordance with the synchronization signals in the DVD video data detected by the timing control circuit 204 in FIG. 9 (a third expander circuit). As also shown in Fig. 9, FIFO 312a is used to buffer graphics data, and FIFO 312b is used to buffer a third (α) data. Fujimoto further teaches the motion picture data (video data) stored in the main memory 13 are provided to the MPEG2 decoder 102 through the DVD-ROM drive 101 (col. 11, lines 33-35). Thus, video data is buffered in the main memory.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto (U.S. Patent No. 5,912,710) in view of Kurtze et al. (U.S. Patent No. 6,198,477).

Referring to claims 13 and 22, as cited above, Fujimoto teaches a method of spatially combining a first input data stream and a second data stream to generate a combined output data stream by modifying at least one image from the first input data stream.

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Thus, Fujimoto teaches all the limitations of claims 13 and 22, except that the first input data stream is read out from a memory, and the combined output data stream is written back to the memory.

However, Kurtze et al. teach a method of blending multiple data streams (Fig. 3, and col. 6, lines 28-45). Kurtze et al. further teach the video data can be received from a local memory, and the result output data stream is written back to the local memory 142 (Fig. 3, col. 25, lines 35-47).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Kurtze et al. in combination with the method as taught by Fujimoto in order to reduce the memory bandwidth requirements (col. 25, lines 50-55).

In regard to claim 14, as cited above, Fujimoto teaches the first modification circuit converts input stream of graphics data into an output format between a video picture format and graphics format to be displayed on television monitor 200.

In regard to claim 15, as shown in Fig. 3, Fujimoto teaches the motion picture image of the sample object 24 (e.g., the dolphin), along with the graphics data images including the title 23, attributes 25, image data 26 and operation buttons 27 are displayed in full screen mode (col. 8, lines 6-12). As depicted in Fig. 3, graphics information, for example operation buttons is placed in front of video data (the dolphin 24).

As for claims 16-20, as cited above, Fujimoto teaches interleaving of colors in graphics data; separation of color data; scaling and filtering the images; performing bitwise logical operation; and also teaches performing alpha blending the first input data stream and the second data streams.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

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Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose
telephone number is (571)-272-2600.

H. Nguyen

04/07/2005

A handwritten signature in black ink, appearing to read "Matthew C. Bella".

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600